Dear AUC,

Thank you for the opportunity to provide feedback on the evolving framework for microgeneration in Alberta. I write today as a concerned and engaged stakeholder in Alberta's energy future. Alberta has long been a leader in energy, whether through oil and gas or the rapidly growing renewable energy sector. **We must ensure that regulatory decisions reflect this leadership by supporting innovation, investment, and broad participation — not by arbitrarily limiting it.**

Unfortunately, recent policy uncertainty and delays — including the moratorium on renewable energy development — have already resulted in significant setbacks. Industry reports and media coverage (including CBC) indicate that as much as **$4 billion** in projects have been cancelled or delayed. This directly undermines Alberta's economic competitiveness, especially as demand surges from both residential growth and emerging commercial sectors such as data centers. In fact, recent news coverage highlights that data center development is now at risk due to insufficient generation capacity — a consequence of delayed infrastructure and restrictive policy.

Considering this, I urge the Commission to consider regulatory reforms that reflect both the capabilities of modern solar design and the need for equitable, grid-aware access.

In addition, I would strongly urge the Commission to look to the future of an electrified transportation world. Energy demands are only increasing, and having homeowners contribute will help us all. In addition, true incentives in energy bill structure and feeds, with batteries or other energy storage methods, would further stabilize and strengthen the grid through many small producers with the incentives to back-feed power at off-solar peak times. There currently is no significant financial gain for energy storage for homeowners. Driving the adoption of energy storage would be very beneficial to the quality of power, and resilience of Alberta's electrical grid.

Question 1: Should system size be limited based on consumption?

Recommendation: No. Limits based solely on consumption are arbitrary, counterproductive, and outdated.

Proposed Framework:

- Allow systems up to the **maximum service size** (i.e., the bus rating of the service panel or utility connection), rather than basing limits on historical consumption, which is ever changing due to new loads and efficiency gains.

- Incorporate **local transformer back-feed capacity** using real world **self-consumption ratios** to govern community-level limits. For example, if self-consumption data show that 20% of solar energy is consumed onsite, a 50kVA transformer could safely support up to 60kVA of connected solar capacity.
- Allocate solar interconnection on a **first-come, first-served** basis within each transformer's calculated back-feed tolerance. Laggards would have access to 'zero-export' microgeneration agreements and would be charged for production and consumption through their meter.

Additional Considerations:

- Existing microgeneration systems must not be retroactively reviewed or penalized. Consumption naturally changes over time, and honest producers could be unfairly impacted.
- Accurate system performance estimates require professional assessment of azimuth, tilt, shade, vent placement, and historical irradiance — all of which solar installers are better equipped to assess than wire service providers as they are properly incentivized to be accurate. Wire providers would not be incentivized to calculate production with sufficient accuracy.
- Wire providers, lacking incentive and site-specific expertise, may rely on oversimplified algorithms that fail to reflect real-world conditions. For example, a wire provider has put forth production calculations in their application software and this standard calculation has already demonstrated inaccuracy when applied at scale.
- A standardized, under-estimated by a set percentage, **rule-of-thumb model** (e.g., 1000 kWh/kWp for unshaded, south-facing systems instead of the expected 1200+ kWh/kWp) could simplify approvals, with the option for installers to submit validated shading reports to justify deviations.

Question 2: Should microgeneration be monitored to ensure production matches consumption?

Recommendation: No. Ongoing monitoring adds administrative complexity, invites abuse, and misaligns with the reality of grid design.

Proposed Alternative:

- Base limitations on **technical grid constraints** such as transformer back-feed capacity, rather than consumption metrics.
- If back-feed capacity is reached in a given area, require **zero-export** inverter settings and prohibit energy sales in bi-directional metering — effectively self-regulating the system without requiring constant oversight.
- If users breach zero-export agreements, automated billing discrepancies will alert both the utility and the customer, minimizing enforcement burden.

Question 3: Derating

Recommendation: Allow **factory-set derating** with clear controls.

Details:

- Derating is useful for staying within local transformer or service-entrance breaker panel bus capacity limits.
- Must be **manufacturer-locked**, preliminary documentation submitted with interconnection application, with stamped documentation required prior to energization.
- To avoid costly manual enforcement, utilities could include clear warnings on power bills — e.g., that unauthorized changes may result in fines or liability for damaged grid equipment set at a high minimum charge.

Question 4: Target-based capacity limits (e.g., Medicine Hat model)

Recommendation: Support implementation of capacity lookup tables per address/site ID.

Details:

- A system showing available microgen capacity by address (e.g., via online lookup or on the customer's utility bill) would streamline planning for both homeowners and installers.
- Eliminates unnecessary delays caused by timing mismatches between equipment installation and approval.
- Printing available generation on the customer's power bill would make the disclosure shockingly easy for all parties.

Question 5: Inconsistent equipment approval across wire providers

Recommendation: Standardize equipment approval lists across Alberta.

Details:

- Current inconsistency (e.g., approval in EPCOR territory but rejection in Fortis territory) causes significant financial harm to contractors and customers alike.
- Recommend **annual updates** to approved equipment lists, with changes announced at least one season in advance (e.g., changes ratified in fall become active the following spring).
- Include structured consultation timelines to ensure that industry stakeholders can provide meaningful feedback on proposed changes.
- Include home owners, installers, wire providers and other stakeholders to make sure that all voices are heard. Understanding that Wire Providers currently have more sway currently, this 'political power' should be equalized as much as possible, to ensure that Albertans are also advantaged; not just wire providers.

Question 6: Broader reflections on regulatory direction

Concern: Over-reliance on consumption-based rules or utility-controlled evaluation models restricts Alberta's ability to lead in energy innovation.

Recommendation: Regulatory frameworks should prioritize:

- Physical grid limitations and safety codes,
- Transparent, predictable processes,
- Fair participation for small producers,
- Recognition of installers' technical capacity and due diligence.

Let's ensure Alberta continues to be a global leader in energy — not only in oil and gas but in solar and wind as well.
